REMARKS

I. Status of the Claims

Claims 1-18 are pending, and claim 4 has been withdrawn from consideration. By this amendment, Applicants have amended claim 3 to correct clerical errors. No new matter has been added by these amendments. The Examiner has maintained his rejections of claims 1-3, 5-18 under 35 U.S.C. § 112, second paragraph and issued a rejection of claims 10-15 under 35 U.S.C. § 112, first paragraph.

II. Request to Withdrawal Finality of Office Action

Applicants respectfully request reconsideration and withdrawal of finality of the Office Action dated August 22, 2003 in the present application.

The Manual of Patent Examining Procedure at § 706.07(a) clearly provides in pertinent part:

> Under present practice, second or any subsequent actions on the merits shall be final, **except where the examiner introduces a new ground of rejection** that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p).

(emphasis added). No claims were amended in the Response filed on July 22, 2003. Therefore, the citation of a new basis for rejection was not necessitated by an amendment.

In the outstanding Office Action, the Examiner for the first time issued a § 112, first paragraph rejection, rejecting claims 10-15. Final Office Action at 5-10. Yet in the first Office Action, 35 U.S.C. § 112, first paragraph is nowhere mentioned. Furthermore, the only reference to such a "rejection" that Applicants can find on the record is the

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single sentence "Claims 9-18 will also raise the issue of enablement under 35 U.S.C. 112," First Office Action at 8, as well as a the vague statement that "[t]he 'how to use' requirements of 35 U.S.C. 112 are not met by disclosing only a pharmacological activity of the claimed compounds if one skilled in the art would not be able to use the compounds effectively without undue experimentation." *Id.*

Applicants not only requested clarification of these points on the record (see July 22, 2003 Response at 7), but also were informed by the Examiner during an August 11, 2003 telephone conversation he would issue a non-final second Office Action in view of vague nature of the statements made in the first Office Action, agreeing that no rejection in fact had been made on these grounds. Applicants simply would have been unable to respond fully and accurately based upon the information provided in the first Office Action, and in fact were unaware whether a rejection was being made, and if so, for which claims.

The M.P.E.P., moreover, specifically cautions against taking the exact action followed by the Examiner:

> In accordance with the principles of compact prosecution, if an enablement rejection is appropriate, the first Office action on the merits should present the best case with all the relevant reasons, issues, and evidence so that all such rejections can be withdrawn if applicant provides appropriate convincing arguments and/or evidence in rebuttal. . . . Citing new references and/or expanding arguments in a second Office action could prevent that Office action from being made final.

M.P.E.P. § 2164.04

In view of the foregoing, Applicants respectfully submit that the finality of the Office Action of August 22, 2003 is premature and should be withdrawn.

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III. § 112, Second Paragraph Rejections

The Examiner has stated that "[r]ejections made under 35 U.S.C. 112, para[graph] second in the earlier Office Action as stated above are maintained further for the reasons already stated there." Office Action at 4. Applicants are confused as to whether the Examiner has considered Applicants' response to these rejections, and, if so, why the Examiner has failed to rebut and/or concur with any of Applicants arguments of record. Although the Examiner may simply refer to the rejections of the first Office Action, he **must** at least consider Applicants' response, and "should include a rebuttal of any arguments raised in the applicant's reply." M.P.E.P. § 706.07.

Thus, Applicants maintain the arguments set forth in their July 22, 2003 Response and respectfully request the Examiner explain his position as to the arguments advanced and elaborated upon by Applicants.

The Examiner additionally recites four new grounds for rejection under 35 U.S.C. § 112, second paragraph, which Applicants respectfully traverse in turn below.

(1) The Examiner has requested claims 1-3 and 5-8 be amended to recite "a compound[ ] of Formula I or a pharmaceutically acceptable salt, or a stereo isomeric form thereof." Office Action at 4. The Examiner's reasoning, however, is not clear from the record. The Examiner has failed to meet his burden of demonstrating that the scope of the claim is so unclear that the public would not be informed of the boundaries of what constitutes infringement of the patent. M.P.E.P. § 2173. Moreover, the M.P.E.P. specifically instructs that "a claim may not be rejected solely because of the type of language used to define the subject matter for which patent protection is sought," *id.* at

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§ 2173.01, and the Examiner "should not reject claims or insist on their own preferences if other modes of expression selected by applicants also satisfy the statutory requirement." *Id.* at § 2173.02.

(2) The Examiner has requested that Applicants amend claims 9 and 16-18 to recite "a pharmaceutical composition" in lieu of a "pharmaceutical preparation." Applicants respectfully submit that the Examiner has in no way demonstrated that the term "preparation" is indefinite or that one of ordinary skill in the art would not quickly and easily understand the meaning of the term "preparation."

Again, the Examiner has failed to meet his burden of demonstrating that the scope of the claim is so unclear that the public would not be informed of the boundaries of what constitutes infringement of the patent. M.P.E.P. § 2173. "Preparation" and "composition" are understood by those of ordinary skill in the are as being synonymous, and therefore, Applicants respectfully request that this ground for rejection be withdrawn.

(3) The Examiner has rejected claims 10-16 under 35 U.S.C. § 112, second paragraph, alleging that "the specification remains silent to clearly and exactly define various diseases, and others which are K+ channel mediated specific diseases." Office Action at 5. Additionally, the Examiner alleges that "[t]he specification does not indicate which patient has the potential to be afflicted by such a condition and which patient will not be afflicted" or "whether [a] certain patient needs prevention" of specific diseases. *Id.*

Applicants respectfully assert that that one of ordinary skill in the art would readily recognize both a K+ channel-mediated disease and a patient, as referenced in

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claims 10-16. The Examiner has failed to show otherwise, and likewise has failed to establish that claims 10-16 are indefinite as written. Therefore, Applicants respectfully request withdrawal of this ground for rejection.

(4) The Examiner has pointed out that Claim 3 ends with two periods. Claim 3 has been amended to correct this clerical error. Thus, Applicants respectfully request withdrawal of this ground of rejection.

IV. § 112, First Paragraph Rejection

The Examiner has rejected claims 10-15 under 35 U.S.C. § 112, first paragraph because, according to the Examiner, "the specification, while being enabling for treating a disease, does not reasonably provide enablement for preventing and terminating the diseases or conditions." Office Action at 5-6. The Examiner alleges that the claims "do not define a specific disease." *Id.* at 6. Applicants respectfully traverse this rejection.

First of all, the enablement rejection is procedurally incorrect. The Examiner appears to reject the claims for lack of utility, asserting that, for example, "such utilities are unbelievable on their face." Office Action at 10. According to the M.P.E.P. § 2164.07 I.A, however, "Office personnel should not impose a 35 U.S.C. 112, first paragraph rejection grounded on a 'lack of utility' basis unless a 35 U.S.C. 101 rejection is proper." Thus, if the Examiner doubts that the compounds can effectively treat a particular disease, a rejection for lack of credible utility should be made first. Instead, the Examiner improperly uses 35 U.S.C. § 112, first paragraph, claiming that it would require "undue experimentation" to determine which compounds can effectively treat a particular disease. According to the M.P.E.P, however, unless the Examiner first

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properly establishes a rejection for lack of a credible utility under 35 U.S.C. § 101, an enablement rejection based on inoperativeness is not proper.[1]

Second of all, even assuming *arguendo* the enablement rejection is proper, the Examiner has failed to show that claims 10-15 are not adequately enabled. The test for enablement of a claim includes an analysis of whether the specification, at the time of filing, "contained sufficient information regarding the subject matter of the claims as to enable one skilled in the pertinent art to make and use the claimed invention." M.P.E.P. § 2164.01. In turn, whether one of ordinary skill in the art could make and use the claimed invention turns on whether one would need to engage in undue experimentation to practice the invention. *Id.*

Treatment for K+ channel-mediated diseases is supported throughout the instant specification, for example, at page 18, line 29 to page 19, line 6. One of ordinary skill in the art would recognize, without undue experimentation, whether or not a specific disease is a K+ channel-mediated disease. For example, if after administration of a known K+ channel inhibitor or activator in a test subject, disease symptoms were effectively treated or prevented, one of ordinary skill in the art would recognize the disease as a K+ channel-mediated disease. It is not necessary, and indeed undesirable, for Applicants to list each and every possible K+ channel-mediated

[1] Even if the Examiner meant to reject the claims under 35 U.S.C. § 101 for lack of a credible utility, the Examiner has still failed to establish a proper utility rejection. According to the specification, the compounds of the present invention may "act on the 'Kv1.5 potassium channel' and, as an ultra-rapidly activating delayed rectifier, inhibit a designated potassium current in the human atrium. The compounds may therefore be particularly suitable as novel antiarryhthmias." Specification at 16, ll. 7-10. Moreover, data for Examples 1-67 depicts the activities of specific compounds of the present invention. *Id.* at 52. According to the M.P.E.P. § 2107.03 III, *in vitro* data is generally sufficient to support a therapeutic utility. An absolute showing of *in vivo* efficacy is not required to establish utility. *Id.* Thus, unless the Examiner points to some particular reason to doubt that the *in vitro* results would not correlate with *in vivo* efficacy, a proper lack of utility rejection is not made.

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disease: "A patent need not teach, and preferably omits, what is well known in the art." M.P.E.P. § 2164.01. A patient, moreover, as would be understood by one of ordinary skill in the art, is one who either has such a disease or is at risk of developing such a disease.

The Examiner also adds that "Applicants provide no reasonable assurance that any and all derivatives of the instant compounds and their combinations either alone or in a combination therapy as outlined, will have [the] ability to generate the compounds in vivo or vitro by one or more process." Office Action at 6. Applicants do not understand this statement, as Applicants do not have any process claims directed towards generating these compounds in vivo or in vitro. Thus, Applicants respectfully request clarification of this basis for the rejection.

Furthermore, in discussing Examples 1-67, the Examiner asserts that "it is difficult to make direct comparison[s] among various data as recited," with "art recognized reference compounds." Office Action at 9. Applicants respectfully note, however, that the Examiner has not established, nor can he establish, that such direct comparisons are in any way necessary or relevant to establish enablement (or for that matter utility) of the present claims.

Finally, the Examiner points out that Applicants Examples do not involve clinical trials, and that, without such trials, Applicants efficacy data "just indicates a preliminary screening of the compounds prepared." Office Action at 9. However, as the Examiner knows, clinical trials are not required nor even encouraged to show enablement of the claims, or for that matter utility, of the claims: "Office personnel should not impose on applicants the unnecessary burden of providing evidence from human clinical trials.

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There is no decisional law that requires applicants to provide data from human clinical trials to establish utility for an invention related to treatment of human disorders." M.P.E.P. § 2107.03 IV. Therefore, Applicants respectfully request prompt withdrawal of the rejection of claims 10-15 based on § 112, first paragraph.

IV. Conclusion

Applicants respectfully request that this Amendment under 37 C.F.R. § 1.116 be entered by the Examiner, placing claims 1-3 and 5-18 in condition for allowance. Applicants submit that the proposed amendment of claim 3 does not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner, since all of the elements and their relationships claimed were either earlier claimed or inherent in the claim as examined. Therefore, this Amendment should allow for immediate action by the Examiner.

Furthermore, Applicants respectfully point out that the final action by the Examiner presented some new arguments as to the application of the art against Applicant's invention. It is respectfully submitted that the entering of the Amendment would allow the Applicants to reply to the final rejections and place the application in condition for allowance.

Finally, Applicants submit that the entry of the amendment would place the application in better form for appeal, should the Examiner dispute the patentability of the pending claims.

In view of the foregoing remarks, Applicants submit that this claimed invention, as amended, is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicants therefore request the entry of this

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Amendment, the Examiner's reconsideration of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: December 22, 2003

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